CLAIMS

1. Method of translating input data into at least one lexical output sequence including a step of decoding the input data during which sub-lexical entities represented by the said data are identified by means of a first model constructed on the basis of predetermined sub-lexical entities, and during which there are generated, as the sub-lexical entities are identified and with reference to at least one second model constructed on the basis of lexical entities, various possible combinations of the said sub-lexical entities, each combination being intended to be stored, conjointly with an associated likelihood value, in storage means which include a plurality of memory areas, each of which is able to contain at least one of the said combinations, each area being provided with an address equal to a value taken by a predetermined scalar function when the said function is applied to parameters peculiar to sub-lexical entities and to their combination intended to be stored together in the area in question.

2. Translation method according to Claim 1, in which the predetermined scalar function is a function of an injective nature.

3. Translation method according to Claim 2, in which the predetermined scalar function is also of a surjective nature.

4. Translation method according to Claim 4, in which the sub-lexical model contains models of sub-lexical entities, different states of which are numbered contiguously and have a total number less than or equal to a first predetermined number peculiar to the sub-lexical model, and in which the articulation model contains models of possible combinations of sub-lexical entities, different states of which are numbered contiguously and have a total number less than or equal to a second predetermined number peculiar to the articulation model, the numbers of the states of the sub-lexical entities and their possible combinations constituting the parameters to which the predetermined scalar function is intended to be applied.

5. Translation method according to Claim 4, in which each value taken by the predetermined scalar function is a concatenation of the remainder of a first integer division by

the first predetermined number of the number of a state of a sub-lexical entity identified by means of the first model and a remainder of the second integer division by the second predetermined number of the number of a state of a combination identified by means of the second model.

6. Translation method according to one of Claims 1 to 5, according to which the decoding step uses a Viterbi algorithm applied conjointly with a first Markov model having states representing various possible modellings of each sub-lexical entity enabled in a given translation language, and to a second Markov model having states representing various possible modellings of each articulation between two sub-lexical entities enabled in the said translation language.

7. Method of translating input data into a lexical output sequence, including a step of decoding the input data intended to be executed by means of an algorithm of the Viterbi algorithm type, simultaneously using a plurality of distinct knowledge sources forming a single transducer whose states are intended to be stored, conjointly with an associated likelihood value, in storage means which include a plurality of memory areas, each of which is able to contain at least one of the said states, each area being provided with an address equal to a value taken by a predetermined scalar function when the said function is applied to parameters peculiar to the states of the said single transducer.

8. Speech recognition system implementing a translation method according to one of Claims 1 to 7.